Total Phosphorus by Flow Injection Colorimetry- LATCHAT
QuickChem Method 10-115-01-4-E

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst:_____ Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____					
Are samples preserved with sulfuric acid to pH<2 and cooled to ≤6°C at the time of collection?	40 CFR Part 136.3				
Are samples analyzed within 28 days of collection?	40 CFR Part 136.3				
Is glassware washed with 1:1 HCl and rinsed with DeI?	11.3.2				
Prior to use, are reagent solutions degassed with helium for one minute?	7.1				
Is ascorbic acid solution prepared fresh weekly and discarded if solution becomes yellow?	7.1				
Are working standards prepared fresh weekly?	7.2				
Are standards and samples digested? (Alternatively, standards can be prepared in 0.l3M sulfuric acid.)	11.1				
If standards are prepared in 0.13M sulfuric acid, are at least several standards digested?	11.1.1				
If using persuflate digestion, are the following steps taken? ( ) Add 1 mL 5.6M H_2SO_4 to 50 mL sample in 125 mL flask. ( ) Add 0.4g ammonium persulfate and boil gently until reduced to about 10 mL OR autoclave for 30 min. at 121ºC, 15-20 psi. ( ) For samples containing arsenic or high iron, add 5 mL sodium bisulfite mix and place in 95ºC water bath for 30 minutes. ( ) Cool, transfer, and dilute to 50 mL with deionized water.	11.1.2				
If using sulfuric acid digestion, are the following steps taken? ( ) Add 1 mL 5.6M H_2SO_4 to 50 mL sample in 125 mL flask. ( ) Boil gently 30-40 minutes or until reduced to about 10 mL OR autoclave for 30 min. at 121ºC, 15-20 psi. ( ) For samples containing arsenic or high iron, add 5 mL sodium bisulfite mix and place in 95ºC water bath for 30 minutes. ( ) Cool, transfer, and dilute to 50 mL with deionized water.	11.1.3				

Notes/Comments:

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Is the MDL established per 40 CFR 136, and is the MDL less than or equal to 0.1 mg/L?	9.2.1, 1.3				
Is a second source QCS (or LCS) analyzed with each batch and the recovery within the current lab acceptance criteria?	9.7, 9.3.4.1				
Is a LRB analyzed with each batch of samples and determined to be less than the Minimum Level? *(Method does not define Minimum Level; use MDL per EPA 365.1.)*	9.3.1				
Are a minimum of 10 percent of all samples (one per batch of 10) spiked in duplicate, and do the recovery and RPD fall within current lab acceptance criteria?	9.3				
Is calibration verified by a midrange calibration standard after every ten samples, and is its recovery within ±10%?	10.7				
Is the instrument allowed to warm up for at least 15 minutes?	11.3.3				
If a sample is over-range, is it diluted with carrier and reanalyzed?	11.3.5				

Notes/Comments: